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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,246	09/17/2003	James Bumgardner	UV-438 CIP	3327
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ROPES & GRAY LLP PATENT DOCKETING 39/361 1211 AVENUE OF THE AMERICAS NEW YORK, NY 10036-8704			EXAMINER DANG, HUNG Q	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/605,246	<b>Applicant(s)</b> BUMGARDNER ET AL.	
	<b>Examiner</b> HUNG Q. DANG	<b>Art Unit</b> 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 34-66 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 34-66 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/01/2004</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 02/26/2008 have been fully considered but they are not persuasive.

At pages 15-16, Applicant argues that "neither Ohno, Ismail, nor Fletcher teaches or suggests generating a plurality of solutions to a tuner conflict, where each solution corresponds to a storage schedule that includes a subset of the shows" in the maintained list of shows, and "storing shows according to one such schedule using a tuner which is on a network of tuners." In response, the Examiner respectfully disagrees.

First of all, the Examiner respectfully would like to prove that Ismail does disclose the following features, "maintaining a list of shows that are scheduled for storage on the storage device using at least one tuner" and "a plurality of solutions, each of which corresponds to a storage schedule that includes a subset of the shows."

In [0054] and Fig. 2, Ismail discloses a recording manager that maintains a list of all programs at X, or within time period X, to be recorded in accordance with the ratings, which assign priorities to each program. The programs having the highest rating are given highest preference for recordation and the programs having lowest rating are given lowest preference for recordation. Depending on a chosen preference, a particular order of recordation is established and indeed a solution that includes a subset of the shows. For example, also in [0054], Ismail states, "recordation is subject to storage capacity constraints. For example, if the highest rated program is one-hour long, and

only thirty minutes of recording space is available on storage devices, then the one-hour program is skipped and the highest rated thirty-minute program is recorded.” That description illustrates a solution of storage. Further, in [0055], Ismail states, “highest priority for recording of programs is given to programs specifically requested by the user. For example, if the user identifies a particular program for recording, such as by specifying the data, time, and channel, or by specifying an identification code for the program, recordation of that program is given priority over programs rated by the preference agent.” The particular user selection of recordings just described gives another example of a different solution than that described in [0054] above. Also in [0055], Ismail describes, “Next highest priority is given to program matching particular category-value pairs specified by the user. For example, if the user does not identify a particular program, but specifies that one-hour long documentaries pertaining to travel should be recorded, then recordation of programs matching such category-value pairs is given priority over programs rated by the preference agent. In alternative embodiments, relative priority between user-specified programs, user-specified category-value pairs and programs rated by the preference agent is changeable by the user.” With that description, there are many combinations of recordation order that can be established and each of which corresponds to a solution of storage. In Fig. 2, Ismail discloses the step 203, “Record: highest rating to lowest rating”, that is to record the programs according to a selected solution.

Second, the Examiner respectfully would like to prove that Ohno does disclose “generating a plurality of solutions to a tuner conflict.”

In Ohno, a network of TV broadcast receiving apparatuses, each of which includes a tuner shown in Fig. 1 is disclosed (Fig. 5). Each of these TV broadcast receiving apparatuses is referred to by Ohno simply as a tuner, e.g., "self-tuner" and "remote tuners". The self-tuner and the remote tuners have basically identical components, except for the tuner units, each of which could have slightly or different bandwidth characteristics (see [0044]). Although referred to as self-tuner, this self-tuner could be a remote tuner because all tuners have the same processing as described ([0064]). In Ohno, processing in case of a tuner conflict is described with respect to the self-tuner. It is understood that this is also applied to other tuners in the network. Having said that, the Examiner interprets a tuner conflict, in its broadest meaning, to comprise all recording, programming, or bandwidth conflicts occurring at a tuner node.

So in [0071]-[0080], Ohno describes a situation where channels 1-4 are multiplexed on RF1 and channels 5-8 are multiplexed on RF2 and the self-tuner is busy with channels 1 and 2 while its user likes to switch to channel 5 multiplexed on RF2 for recording. In this case, the self-tuner analyzes some management data to get a remote tuner, which can be tuned to receive that channel 5 program data to transfer the data to the self-tuner to be recorded. The description corresponds to one solution.

One of ordinary skill in the art would recognize that, according to the teachings of Ohno, now if the self-tuner is still busy with channels 1 and 2 and the user wants to record channel 6, which is multiplexed on RF2. The same process will take place. And the self-tuner, depending on the status of the network and the status of each of the tuner node, can get a different remote tuner to receive and transfer the data. And that

corresponds to another solution. The same process can be repeated to yield different solutions depending on the status of the network and the tuner nodes.

For that reason, the Examiner believes Ohno discloses “generating a plurality of solutions to the tuner conflict” depending on user's inputs at the nodes and the status of the network at the time.

Further, one of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the show list disclosed by Ismail into the video recorder disclosed by Ohno to give users flexibility on recording of programs. For example, the list of programs to be recorded can be automatically collected using user's preference data or by users' requests or using storage capacity constraints. The incorporated feature would make the video recorder more robust and well adaptive to users' taste and network environments.

Also, the combination of Ohno and Ismail does disclose the feature of “storing shows according to one such schedule using a tuner which is on a network of tuners” because both Ohno and Ismail disclose recording after the recording parameters are established. Specifically, in Ohno, after the remote tuner that can receive the desired channel data is identified and in Ismail, the programs data are recorded after a subset of the list of programs, i.e. the priority within the list is known.

The claims are rejected as described in details below.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory

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obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

**Claims 34, 36-43, 45-55, and 57-66 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 41-65 of copending Application No. 10/248699 in view of Ohno et al. (US 2001/0028782).**

Regarding claim 34 of this application, claim 41 of Application No. 10/248699 recites a video recorder configured to schedule the storage of shows, the video recorder comprising: a plurality of television tuners configured to receive a plurality of shows; a storage device configured to store a plurality of the received shows; and a conflict manager configured to: maintain a plurality of shows that are scheduled for storage on the storage device using the at least one tuner; determine that there is a tuner conflict based on the maintained shows; determine the availability of at least one other tuner in the network of tuners; generating a plurality of solutions to the tuner conflict; and initiate

the storage of the show according to storage schedule corresponding to one of the plurality of solutions.

However, claim 41 of Application No. 10/248699 does not recite, “network of tuners” and “the storage device coupled to the at least one television tuner”.

Ohno et al. disclose the tuners interconnected via a network (Fig. 1; Fig. 5; [0030]; [0044]) and the storage device coupled to the at least one television tuner (“Storage 110” of Fig. 1; [0040]; [0071]).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the tuner network and coupling the storage device to at least one television tuner into the disclosure of claim 41 of Application No. 10/248699 in order to coordinate the sharing of tuners to expand the device capability of recording and to directly store the programs received by the tuner for playback at a later time.

Regarding claim 36 of this application, claim 42 of Application No. 10/248699 recites receiving a request to store a further show to the storage device and assigning a priority to the further show.

Regarding claim 37 of this application, claim 43 of Application No. 10/248699 recites evaluating the plurality of solutions by comparing the assigned priority of the further show to priorities associated with the shows in the plurality of solutions.

Regarding claim 38 of this application, claim 44 of Application No. 10/248699 recites eliminating at least one solution if each of the shows in the storage schedule corresponding to the at least one solution has a lower priority than the priority assigned to the further show.



Regarding claim 39 of this application, claim 45 of Application No. 10/248699 recites cancelling the recording of each of the shows in the storage schedule corresponding to the at least one eliminated solution.

Regarding claim 40 of this application, claim 46 of Application No. 10/248699 recites providing the user with the opportunity to cancel at least one show from one of the plurality of solutions.

Regarding claim 41 of this application, claim 47 of Application No. 10/248699 recites searching through an interactive program guide to determine if one of the shows in the maintained list is available to record at a later time.

Regarding claim 42 of this application, claim 48 of Application No. 10/248699 recites rescheduling the recording of the program to the later time based on the determination.

Claim 43 is rejected for the same reason as discussed in claim 34 above and in reference to claim 49 of Application No. 10/248699.

Claim 45 is rejected for the same reason as discussed in claim 36 above and in reference to claim 50 of Application No. 10/248699.

Claim 46 is rejected for the same reason as discussed in claim 37 above in reference to claim 51 of Application No. 10/248699.

Claim 47 is rejected for the same reason as discussed in claim 38 above in reference to claim 52 of Application No. 10/248699.

Claim 48 is rejected for the same reason as discussed in claim 39 above in reference to claim 53 of Application No. 10/248699.

Claim 49 is rejected for the same reason as discussed in claim 40 above in reference to claim 54 of Application No. 10/248699.

Regarding claim 50 of this application, claim 55 of Application No. 10/248699 recites the priority associated with one show in the maintained list of shows is established by comparing the length of the one show to each of the other shows in the maintained list.

Regarding claim 51 of this application, claim 56 of Application No. 10/248699 recites the priority associated with one show in the maintained list of shows is established based on whether the show was scheduled for recording manually or automatically.

Regarding claim 52 of this application, claim 57 of Application No. 10/248699 recites determining if there is a conflict between a plurality of series.

Regarding claim 53 of this application, claim 58 of Application No. 10/248699 recites eliminating at least one solution if at least one show in the storage schedule corresponding to the at least one solution is part of the series and is a repeat.

Regarding claim 54 of this application, claim 59 of Application No. 10/248699 recites the priority associated with one show in the maintained list of shows is established based on whether the one show is currently being recorded to the storage device.

Claim 55 is rejected for the same reason as discussed in claim 34 above in reference to claim 60 of Application No. 10/248699.

Claim 57 is rejected for the same reason as discussed in claim 36 above in reference to claim 61 of Application No. 10/248699.

Claim 58 is rejected for the same reason as discussed in claim 37 above in reference to claim 62 of Application No. 10/248699.

Claim 59 is rejected for the same reason as discussed in claim 38 above in reference to claim 63 of Application No. 10/248699.

Claim 60 is rejected for the same reason as discussed in claim 39 above in reference to claim 64 of Application No. 10/248699.

Claim 61 is rejected for the same reason as discussed in claim 40 above in reference to claim 65 of Application No. 10/248699.

Claim 62 is rejected for the same reason as discussed in claim 50 above.

Claim 63 is rejected for the same reason as discussed in claim 51 above.

Claim 64 is rejected for the same reason as discussed in claim 52 above.

Claim 65 is rejected for the same reason as discussed in claim 53 above.

Claim 66 is rejected for the same reason as discussed in claim 54 above.

This is a provisional obviousness-type double patenting rejection.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 34-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohno et al. (US 2001/0028782) and Ismail et al. (US 2003/0118323).**

Regarding claim 34, Ohno et al. disclose a video recorder (Fig. 1; Fig. 5) configured to schedule the storage of shows ([0071]), the video recorder comprising: at least one television tuner that is in a network of tuners (Fig. 1; Fig. 5; [0030]; [0044]), the at least one television tuner being configured to receive a plurality of shows ([0071]); a storage device coupled to the at least one television tuner, the storage device being configured to store a plurality of the received shows ("Storage 110" of Fig. 1; [0040]; [0071]); and a conflict manager configured to: maintain a plurality of shows that are scheduled for storage on the storage device using the at least one tuner ([0071]); determine that there is a tuner conflict based on the maintained shows ([0074]); determine the availability of at least one other tuner in the network of tuners ([0076]; [0078]); generating a plurality of solutions to the tuner conflict ([0071]-[0080]; also see "Response to Arguments" above); and initiate the storage of the show according to storage schedule corresponding to one of the plurality of solutions using the at least one other tuner in the network of tuners ([0079]).

However, Ohno et al. do not disclose maintaining a list of shows and each solution corresponding to a storage schedule that comprises a subset of the shows in the maintained list.

Ismail et al. disclose maintaining a list of shows and each of plurality of solutions corresponding to a storage schedule that comprises a subset of the shows in the maintained list ([0054]; [0055]; and Fig. 2; also see "Response to Arguments" above).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the show list disclosed by Ismail into the video recorder disclosed by Ohno to give users flexibility on recording of programs. For example, the list of programs to be recorded can be automatically collected using user's preference data or by users' requests or using storage capacity constraints. The incorporated feature would make the video recorder more robust and well adaptive to users' taste and network environments.

Regarding claim 35, Ohno et al. also disclose the conflict manager is further configured to determine an availability of at least one other tuner in the network of tuners by querying the network for another available tuner ([0074]-[0078]).

Regarding claim 36, Ismail et al. also disclose receiving a request to store a further show to the storage device ([0055]) and assigning a priority to the further show ([0055]).

Regarding claim 37, Ismail et al. also disclose evaluating the plurality of solutions by comparing the assigned priority of the further show to priorities associated with the shows in the plurality of solutions ([0054]; [0055]).

Regarding claim 38, Ismail et al. also disclose eliminating at least one solution if each of the shows in the storage schedule corresponding to the at least one solution has a lower priority than the priority assigned to the further show ([0054]; [0055]).

Regarding claim 39, Ismail et al. also disclose cancelling the recording of each of the shows in the storage schedule corresponding to the at least one eliminated solution ([0054]; [0055]).

Regarding claim 40, Ismail et al. also disclose providing the user with the opportunity to cancel at least one show from one of the plurality of solutions ([0054]; [0055]).

Regarding claim 41, Ismail et al. also disclose searching through an interactive program guide to determine if one of the shows in the maintained list is available to record at a later time ([0019]; [0026]; [0038]).

Regarding claim 42, Ismail et al. also disclose rescheduling the recording of the program to the later time based on the determination ([0019]; [0026]).

Claim 43 is rejected for the same reason as discussed in claim 34 above.

Claim 44 is rejected for the same reason as discussed in claim 35 above.

Claim 45 is rejected for the same reason as discussed in claim 36 above.

Claim 46 is rejected for the same reason as discussed in claim 37 above.

Claim 47 is rejected for the same reason as discussed in claim 38 above.

Claim 48 is rejected for the same reason as discussed in claim 39 above.

Claim 49 is rejected for the same reason as discussed in claim 40 above.

Regarding claim 50, Ismail et al. also disclose the priority associated with one show in the maintained list of shows is established by comparing the length of the one show to each of the other shows in the maintained list ([0054]).

Regarding claim 51, Ismail et al. also disclose the priority associated with one show in the maintained list of shows is established based on whether the show was scheduled for recording manually or automatically ([0055]).

Regarding claim 52, Ismail et al. also disclose determining if there is a conflict between a plurality of series ([0019]; [0054]).

Regarding claim 53, Ismail et al. also disclose eliminating at least one solution if at least one show in the storage schedule corresponding to the at least one solution is part of the series and is a repeat ([0019]).

Regarding claim 54, Ismail et al. also disclose the priority associated with one show in the maintained list of shows is established based on whether the one show is currently being recorded to the storage device ([0054]; [0055]; it is noted that, according to the teaching of Ismail et al., the show currently being recorded has the highest priority).

Claim 55 is rejected for the same reason as discussed in claim 34 above.

Claim 56 is rejected for the same reason as discussed in claim 35 above.

Claim 57 is rejected for the same reason as discussed in claim 36 above.

Claim 58 is rejected for the same reason as discussed in claim 37 above.

Claim 59 is rejected for the same reason as discussed in claim 38 above.

Claim 60 is rejected for the same reason as discussed in claim 39 above.

Claim 61 is rejected for the same reason as discussed in claim 40 above.

Claim 62 is rejected for the same reason as discussed in claim 50 above.

Claim 63 is rejected for the same reason as discussed in claim 51 above.

Claim 64 is rejected for the same reason as discussed in claim 52 above.

Claim 65 is rejected for the same reason as discussed in claim 53 above.

Claim 66 is rejected for the same reason as discussed in claim 54 above.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q. DANG whose telephone number is (571)270-1116. The examiner can normally be reached on M-Th:7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hung Q Dang/  
Examiner, Art Unit 2621

/Thai Tran/  
Supervisory Patent Examiner, Art Unit 2621